CENTRAL VALLEY FLOOD MANAGEMENT PLANNING PROGRAM

FloodSAFE CALIFORNIA

Central Valley Flood Protection Plan

Management Actions Workshop

Storage Operations

July 29, 2010, 1:30 p.m. – 5 p.m.
Center for Collaborative Policy
815 S Street, First Floor, Sacramento, CA 95811

Participants: 25

Name	Organization
Mike Anderson	DWR
Lewis Bair	Reclamation No. 108
Roger Churchwell	SJAFCA
Gary Estes	CA Extreme Precipitation Symposium
Nekane Hollister	DWR
John Johannis	USACE
Bill Luce	Friant Water
Earl Nelson	DWR
Randy Olsen	Public
David Peterson	Peterson Brustad, Inc.
Ron Stork	Friends of the River
Max Sakako	RD 1500
Patricia Bratcher	CDFG
S. Leo Capuchino	City of Mendota
Gerardo Dominguez	San Joaquin County Public Works
Crystal Fair-Welty	CCP
Steve Haugen	Kings River Water Association
Steve Sadler	Kings River Conservation District
Steve Schoenberg	FWS
Susan Tatayon	The Nature Conservancy
Joe Bartlett*	DWR
Boone Lek*	DWR
Jon Ericson*	DWR
Ted Frink*	DWR
Alex Tollette*	MWH
Jafar Faghih*	MWH
Eric Clyde*	MWH
Pam Jones*	K & W
Nicole Ugarte*	CCP

*Workshop team
Italic = Attended via webinar

This summary only includes comments made during the workshop. Written comments submitted after the workshop will be available at http://www.water.ca.gov/cvfmp.

Comments and Questions on Draft Initial Management Actions

MA-011: Establish partnerships to coordinate flood management structure operations

Description/CVFPP Goals

- The desired outcome should begin with *enhanced coordination* instead of *modify operation*. The way it is stated is too specific. Operations may not need to be modified, and this Management Action should focus on enhanced coordination towards better management and communication.
- A participant clarified that this Management Action does not include planned construction. Structural changes are covered by another work group.
- The problem description is not complete; there are two elements of coordinating flood management operations. The management action addresses coordinated releases into constrained floodways, however there should be more attention to residual storage.
- The last two sentences of the problem statement should be deleted as they are not pertinent to the problem statement.
- The second-to-last sentence of the problem statements should be deleted. The ecosystem should be able to adapt to the system.
- Forecast-Based Operations methodology involves either coordinating operations that remain consistent with existing regulation manuals, or changing the manuals to better reflect Forecast-Based Operations.
- The language is does not convey the meaning well, and should be written more clearly.
- Coordination with non-flood reservoirs should be included in the methodology.
- Water supply should be reflected in the problem statement as a conflicting need.

Advantages/Disadvantages

- Improve Operation and Maintenance and Improve Institutional Support boxes should be checked
- The recommendation section does not make sense.
- Coordinated operation involves risk, such as balancing storage or operations when communications problems occur, but because the risk is also transferred, it is worth the risk.
- Flood programs do not coordinate with recreation or water supply.

Economic Considerations

- Capital cost is expected to be relatively low.
- Hardware and software costs are more accurate costs for coordinating with non-flood control reservoirs. It is not relevant to list Operation and Maintenance improvements.
- Developing new models for a system-wide cost sharing approach fits into this need.
- It should be re-emphasized that there could be water supply or hydropower losses if non-flood management reservoirs provide storage.
- The *Effect on State Flood Responsibility* should use the term *may*, as the frequency may increase depending on what is released.

Environmental Considerations

- It should be noted that FERC never gets involved in flood management operations that are under purview of USACE manuals.
- Permitting should discuss requirements to change water control manual for reservoirs

Technical Considerations

- Residual risk should be considered.
- Some sections do not seem to apply; staff should verify that the database is outputting the correct information.

- The objective is to reduce the frequency of flooding, but coordination can only alleviate a portion of the risk. Risk remains depending on the weather, and is only exacerbated when operators make the incorrect choice.
- Reducing the flooding risk often increases the residual risk because development is encouraged in floodplains where protection is improved.
- The residual risk has to do with high flows where the levees are substandard and being damaged, which seems to apply to MA-014.
- This Management Action is a spike prevention process.
- As operations coordinate, some locations may experience increased flood stages.

MA-012: Increase flood management flexibility through modifications to the magnitude/timing of flood reservation

Description/CVFPP Goals

- Flood management flexibility should be better articulated. The problem description is more narrowly defined than the title; there are a number of ways that this could be accomplished. Need to capture all of them
- Changing water control manuals is not the only way to achieve this.
- The regulation manuals are in place for good reason. In an emergency situation, the most effective flood management operations are the most simple.

Advantages/Disadvantages

- The second bullet does not seem to apply; this is another instance where the database may have been scrambled.
- Some kinds of reservoir reoperations are low cost and high value. In water conservation situations, they're high cost but then benefits are still relatively higher. In terms of the advantages in economic considerations, this is a low cost, high value, and necessary Management Action.
- Making available storage impacts how water supply is divided among groups.
- Modifying regulation manuals is expensive.
- The disadvantages are important enough to be placed on a separate list, and each bullet could be expanded.
- Flexible management can also benefit the other uses of the reservoir.
- Increasing flood control space will negatively impact other uses, but these conflicts can be mitigated. There are beneficial aspects of a multi-use reservoir and Forecast-Based Operations.

Environmental Considerations

- First paragraph in environmental considerations is out of context. The passage doesn't have anything to do with this project.
- There are benefits as well as adverse effects from changed operations.

Social Considerations

- There is strong concern for communities right next to the river.
- Residual risk should be emphasized.
- The regulation manuals should be changed to reflect the information the operators need to guide their decisions.
- Water supply value, drinking water quality, and associated jobs should be included in this section. Has a potential to reduce water supply yield

Technical Considerations

- In order to change the regulation manual to reflect deeper flood control space, one would need congressional approval.
- It was noted the regulations manuals are written assuming the operator is out of communication at the time. Changes to the manual are going to be complicated and not useful.
- The manual should include instructions for when the operator is in contact or out of contact.

- There was robust discussion about the level of flexibility the manual allows, and what is considered in compliance. The group ultimately decided the conversation was not intimately applicable to the scope of the work group.
- Redirected impacts are a larger system than one owner and a set of beneficiaries. Benefits shifts from multiple categories.
- There could be an increase in river stage.
- References are misplaced, and the Floodsafe initiative should be added.
- The second sentence regarding urban small communities and non urban considerations seem to apply to a different Management Action.

MA-013: Increase flood management flexibility through modifications to objective release schedules at flood management reservoirs

Description/Methodology

- Objective release criteria are typically determined by capacity of downstream channels and levees There can be circumstances where levees cannot handle objective releases, and adjustments should be planned for when the levee design cannot meet the demand.
- The problem statement should include examples of river system problems.
- The last sentence in the problem statement should allow for both increases or decreases.
- In Methodology, the third sentence should describe that flood storage will be increased.
- The Methodology section is not written clearly; it should better articulate that the objective release is increased.
- Increased objective releases could also be used to maintain same level of flood protection while requiring less flood control allocation

Advantages/Disadvantages

- The system would work better if USACE and operators were able to react in real time to actual floodway capacity.
- The description should include that the flood control system status report and the management actions will eventually coordinate.
- Fluctuations in releases create more erosion problems.
- Water supply effects should be more detailed. There could be numerous positive or negative effects on fisheries or peak end of season storage.
- Environmental advantages and disadvantages are not mentioned.
- Adjusting the maximum objective release level will not have a strong impact.
- When the maximum objective release quantity is released, it does have a major impact.
- Higher objective release would have an effect on downstream geomorphic processes.

Economic Considerations

- Impacts to hydropower should be included.
- Higher objective releases could result in higher downstream Operation and Maintenance.
- Encroachment and drawdown should be considered.

Environmental Considerations

- Release increases have some benefits in moving sediment, however there are additional erosion issues.

Social Considerations

- Residual risk in social considerations should be emphasized.

Technical Considerations

- Increasing or reducing objective releases can have a significant effect on carryover storage.
- This management action should be more clearly communicated, because the intent is not clear. Need to speak to increasing objective release as well as reducing.

MA-014: Increase flood management flexibility by implementing conjunctive use programs at flood management reservoirs

Description/Methodology

- This Management Action seems very similar to MA-009 and MA-010; perhaps the three actions can collapse. However, operationally conjunctive use can be quite different from off-stream storage.
- This Action also seems to overlap MA-001 and MA-002
- The last sentence in Methodology discussing the storage benefits of groundwater banks is written too simplistically. Access to water stored in groundwater banks may not be readily available to all users.
- The word *always* should be replaced by *frequently* in the first sentence in Methodology.

Advantages and disadvantages

- Cost could be fairly high and quite complex
- If conjunctive use is done outside the local watershed, then impacts could be much higher.
- Agriculture demands require a high flow rate, which groundwater storage could not deliver.
- Other disadvantages include land use issues affecting county tax codes as well as the cost of the facility for storage.

Economic considerations:

- There are significant pumping and proximity issues.
- This seems to be a co-benefit from other Management Actions rather than an independent action.
- The language assumes a level of control that is not really there, considering county ordinances.

Environmental considerations:

- The language here also seems to be scrambled from the database.
- Anytime the flood control space is increased, the frequency of high flows will be reduced and often those high flows are important for restoring ecosystems.
- Residual risk should be emphasized.
- The challenge of permitting should be noted.

Technical Considerations

- The language assumes a level of control over groundwater stored that may not be accurate.
- Conjunctive use projects can be very challenging technically.

MA-015: Increase flood management flexibility by using transitory storage
The group determined the topic was sufficiently discussed at the previous workshop.

Suggestions for New Management Actions

- *Increase Flood Management Flexibility by Normalization of Use of Surcharge Space at All Reservoirs*. After appropriate analysis, the potential for increase beyond the objective release can be controlled during emergencies. In refill situations, more water can be stored.
- Chapter 6 of the Water Plan should be integrated.
- MA-067 should be moved to this category.